

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended) : A method of stabilizing a clayey geological formation surrounding a hydrocarbon well comprising the steps of:

injecting from a surface reservoir a an aqueous fluid comprising a first and a second reactant, wherein the first reactant is a diamine or a polyhydric alcohol;

letting said fluid contact said clayey formation;

allowing intercalation of said first and second reactant into clay galleries of said clayey geological formation; and

stabilizing said formation by using a reaction between said first and said second reactant, wherein said reaction comprises an *in situ* polymerization taking place in the presence of clay, within said clay galleries, to maintain the integrity of said hydrocarbon well.

Claim 2 (previously presented) : The method of claim 1, wherein the reaction comprises a condensation stabilization with or without pH adjustment.

Claim 3 (currently amended): The method of claim 1, wherein the first reactant is a ~~diamine or a polyhydric alcohol~~ glycol and the second reactant comprises at least one carbonyl group.

Claim 4 (original): The method of claim 1, wherein the first reactant is a diamine or a dihydric alcohol and the second reactant comprises at least one carbonyl group.

Claim 5 (original): A method of drilling a wellbore into a potentially hydrocarbon bearing formation comprising the steps of drilling part of said wellbore through a clayey formation and using a method in accordance with claim 1 to stabilize said formation.

Claim 6 (previously presented): The method of claim 1, wherein the reaction comprises a stabilization through epoxide ring opening under neutral or acidic conditions.

Claim 7 (cancelled)

Claim 8 (cancelled)

Claim 9 (previously presented): The method of claim 1, wherein said reaction takes place inside the clay galleries.

Claim 10 (previously presented): The method of claim 1, wherein a reaction product of said reaction is intercalated in the clay galleries.